

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of the claims in the application.

Listing of Claims:

1. (Currently amended) A method comprising steps of executing a first data transfer command, and delaying execution of a second data transfer command to transfer speculative data in lieu thereof, data transfer method comprising the steps of:  
identifying first and second access commands; and  
acquiring speculative data in conjunction with an execution of the first access command in lieu of executing the second access command when the utility of the acquired speculative data is greater than the utility of executing the second access command.
  
2. (Currently amended) The method of claim 1, wherein the delaying step further comprises a step of adjudging a utility of the speculative data to be higher than a utility of second data associated with execution of said second command, in which acquiring the speculative data in conjunction with an execution of the first access command is determined by steps comprising:  
ascertaining the second command is a write-back access command;  
deciding a data following the first command has a heightened opportunity of servicing a future request for data; and  
deducing a time period for acquiring the data following the first command.

3. (Currently amended) The method of claim 1, wherein the speculative data are transferred through a next available latency period for the second command, 2, in which the decision that the data following the first access command is data having the heightened opportunity for servicing the future data request is based on an analysis of previous read accesses in conjunction with an analysis of read access commands present in the memory, and in which the deduced time period is a period of time based on a time to acquire a predetermined amount of data.

4. (Currently amended) The method of claim 1, wherein the speculative data are transferred during a time period commencing with conclusion of the execution of the first command and concluding prior to a latency period for execution of a third command, 3, in which the first access command is a read command, and in which the deduced time period commences with the conclusion of execution of the read command, extends beyond a latency period for the write back command and concludes with a commencement of sufficient time for execution of a third access command.

5. (Currently amended) The method of claim 4-1, in which the first access command precedes and is directly adjacent the second access command in an execution sequence.

6. (Currently amended) The method of claim 4-1, in which the first access command precedes and is nonadjacent the second access command in an execution sequence.

7. (Currently amended) The method of claim 1, wherein the first command is a data retrieval command, 2, in which the first access command is a read access command, and in which the heightened opportunity of servicing the future request for data is an opportunity of servicing a future request for data, and further in which the deduced time period commences with the conclusion of execution of the read access command and concludes with preservation of sufficient time for executing the write back access command, wherein the read access command precedes and is directly adjacent the write back access command in an execution sequence, and further wherein the decision that the data following the read access command is data having the opportunity for servicing the future data request is based on an analysis of previous read accesses in conjunction with an analysis of read access commands present in a memory.

8. (Currently amended) The method of claim 1, wherein the second command is a data transmission command, 2, in which the heightened opportunity of servicing the future request for data is a minimum opportunity of servicing a future request for data, and in which the deduced time period is zero, wherein the decision that the data following the first access command is data having the minimum opportunity for servicing the future data request is based on an analysis of previous read accesses in conjunction with an analysis of read access commands present in a memory.

9. (Currently amended) The method of claim 1, wherein the speculative data are acquired in conjunction with first data acquired from execution of the first command, 2, in which the deduced time period for acquiring the data following the first access command is determined by a resolution of an amount of data following the first access command to be acquired.

10. (Currently amended) The method of claim 9 1, in which resolution of the amount of data following the first access command to be acquired speculative data transferred during the delaying step is resolved to be a predetermined constant amount of data.

11. (Currently amended) The method of claim 9 1, in which resolution of the amount of data following the first access command to be acquired speculative data transferred during the delaying step is resolved to be a percentage of a buffer segment of a memory.

12. (Currently amended) The method of claim 9 1, in which resolution of the amount of data following the first access command to be acquired speculative data transferred during the delaying step is resolved based on an analysis of previous commands read accesses in conjunction with an analysis of read access commands present in a memory.

13. (Currently amended) The method of claim 9 1, in which resolution of the amount of data ~~following the first access command to be acquired speculative data transferred during the delaying step~~ is resolved based on an amount of remaining space within a buffer segment of a memory.

Claims 14-20 (Cancelled).

21. (New) A method comprising steps of transferring first data in response to an execution of a first pending command, and transferring speculative data instead of second data associated with a second pending command during a next available latency period for the second command when the speculative data are adjudged as having a utility greater than a utility of the second data.

22. (New) The method of claim 21, further comprising steps of receiving the first and second commands in a queue, and executing a command execution algorithm that identifies the second command as a next best command to be executed after execution of the first command.

23. (New) The method of claim 21, comprising a subsequent step of transferring the second data in response to execution of the second command after the transferring speculative data step.

24. (New) The method of claim 21, wherein the second command is a write-back command.

25. (New) An apparatus comprising a controller configured to execute a first data transfer command, and to delay execution of a second data transfer command to transfer speculative data in lieu thereof.

26. (New) The apparatus of claim 25, wherein the controller is further configured to adjudge a utility of the speculative data to be higher than a utility of second data associated with execution of said second command.

27. (New) The apparatus of claim 25, wherein the controller is further configured to subsequently execute the second command to transfer second data after transfer of the speculative data.

28. (New) The apparatus of claim 25, wherein the controller is characterized as a controller of a data storage device.